

**REMARKS****Summary of the Office Action**

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kimura et al (JP 09-045275) (hereinafter "Kimura"), and further in view of Gilbert (JP 62-287560) (hereinafter "Gilbert").

**Summary of the Response to the Office Action**

Claim 1 has been amended to differently describe embodiments of the disclosure of the instant application. Accordingly, claims 1-4 remain currently pending for consideration.

**Rejection under 35 U.S.C. § 103(a)**

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kimura, and further in view of Gilbert. Claim 1 has been amended to differently describe embodiments of the disclosure of the instant application. To the extent that this rejection might be deemed to still apply to the claims as newly-amended, it is respectfully requested for at least the following reasons.

At page 5 of the Office Action, the Examiner responds to Applicants' detailed previously-filed technical traversal of the combination of Kimura and Gilbert by asserting that "Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." Such an assertion is respectfully traversed because, as noted at page 5, lines 1-2 of the Amendment previously filed on July 28, 2009, Applicants respectfully traversed the combination

rejection of Kimura and Gilbert for the detailed reasons provided at pages 5-8 of the Amendment previously filed on July 28, 2009.

Applicants explained that, as described at numerous portions of the specification of the instant application, the electron multiplier arrangement described and claimed in the instant application advantageously results in the respective dynodes and the respective insulating plates being integrally and firmly supported by the columns so that the dynodes and the insulating plates will not undergo lateral deviation due to vibration or impact. Accordingly, the dynode unit exhibits an excellent anti-vibration effect and an improved aseismic effect. See, for example, paragraphs [0008], [0034] and [0041] of the specification of the instant application in these regards. Applicants explained that such arrangements are not taught, nor even suggested, by Kimura.

While Applicants note that even though Gilbert does disclose a structure in which a supporting column is provided on a stem, Applicants respectfully submitted that this dynode holding structure as disclosed in Gilbert also has particular problems in terms of providing an improved aseismic capacity in accordance with the purpose of the disclosure of the instant application.

More particularly in this regard, Applicants respectfully submitted that in the arrangement shown in Fig. 2 of Gilbert, a dynode part 40 is held by a pointed end of a supporting column. This arrangement makes the top portion heavy which would likely cause the dynode part 40 to shake easily. Even further, Applicants explained that the fact that the arrangement disclosed in Gilbert does not include any strengthening element provided in the middle portion of the supporting column 50, Applicants respectfully submit that this would further increase the possibility that the overall arrangement would shake easily. Applicants respectfully submitted

that if such shaking affects the fixed portion of the supporting column 50 and stem 6 and the fixed portion of the supporting column 50 and dynode part 40, the supporting column 50 may come off or the fixation point of the dynode part 40 may become loose. Therefore, Applicants respectfully submitted that the structure disclosed in Gilbert would clearly result in poor overall aseismic capacity even though it employs a structure that provides a supporting column on a stem. The Examiner did not respond to the substance of this important technical point in the Final Office Action dated November 18, 2009.

Turning to the structure illustrated in Fig. 1 of Gilbert, Applicants respectfully submitted that this figure shows a state midway through the manufacturing process. In other words, Fig. 1 does not show a completed state. Nevertheless, Applicants respectfully submitted that even if dynode 40 was fixed in the state as shown in Fig. 1 of Gilbert, the basic structure would be the same as discussed previously with regard to Fig. 2 of Gilbert. As a result, Applicants respectfully submitted that the instability of the dynode part 40 would still exist.

Accordingly, Applicants respectfully submitted in the Amendment previously-filed on July 28, 2009 that: (1) one having ordinary skill in the art would not be led to make the combination of Kimura and Gilbert, as proposed in the Office Action's rejection, because neither of these references teach or even suggest the desirability of such an increase in stability and aseismic capacity.

Also, Applicants respectfully submitted in the Amendment previously-filed on July 28, 2009 that: (2) the Gilbert arrangement teaches away from the Office Action's asserted combination of references by teaching away from obtaining an overall arrangement with increased stability and aseismic capacity in the manner discussed in detail previously.

Applicants respectfully submit that each of the above-indicated technical points (1) and (2) in the foregoing two paragraphs clearly traverse the combination rejection under 35 U.S.C. § 103(a) applying Kimura and Gilbert together and not only the references individually, as asserted at page 5 of the Final Office Action. Importantly, the Final Office Action did not address either of these above-noted important technical and legal arguments (1) and (2) traversing the combination rejection.

**Accordingly, as these technical points (1) and (2) were not responded to by the Examiner in the Final Office Action dated November 18, 2009, Applicants respectfully request that the finality of the Office Action dated November 18, 2009 be withdrawn as per the following directives of MPEP § 706.07.**

MPEP § 706.07 provides directives as to the form of the statement of grounds of a final rejection to be applied by a Patent Examiner. It states that "... the final rejection ... should include a rebuttal of any arguments raised in the applicant's reply (emphasis added)." It is respectfully submitted that the Final Office Action dated November 18, 2009 did not directly respond to Applicants' assertions in the above-noted technical points and legal arguments (1) and (2). **Accordingly, in the event that the next Office Communication is not a Notice of Allowance and the Office Action's assertions regarding the combination of Kimura and Gilbert against independent claim 1 is maintained once again, then the Examiner is respectfully requested to fully respond to these items (1) and (2) in the next Office Communication.**

Despite the foregoing issues, in an effort to advance the prosecution of this application, Applicants have decided to newly-amend independent claim 1 of the instant application to even

further emphasize particular structural features that result in the above discussed purpose of the instant application's disclosure of providing a significantly improved aseismic capacity.

Accordingly, Applicants respectfully submit that independent claim 1 of the instant application has been newly-amended to describe a combination of features of an electron multiplier including: (i) the stem plate (3 in Fig. 1, for example) includes a metallic plate-shaped material structurally configured into a concave shape, the concave shape being filled-in with an insulating sealing member (3A in Fig. 1, for example) so that a column (9 in Fig. 1, for example) is erected through the stem plate and is embedded in the insulating sealing member. Even further, independent claim 1 has been newly-amended to describe that (ii) the insulating part (12 in Fig. 1, for example), which is configured so as to surround the column, is disposed so as to be in direct contact with a top surface of the stem plate.

Applicants respectfully submit that such features (i) and (ii) are neither shown nor suggested by the applied art of record. For example, Applicants note that in the arrangement of Gilbert an end part 51 of bar 50 is fixed to the base part 6 of pipe body 20 by soldering. In addition, as can be seen in the drawing figures, bar 50 does not go through the pipe body 20. In the Gilbert arrangement, bar 50 is erected on a base part 6. However the anchorage strength of bar 50 to base part 6 is weak compared to the arrangement disclosed in the instant application. As a result, Applicants respectfully submit that a sufficient quake resistance cannot be obtained in the Gilbert arrangement.

In addition, Applicants respectfully submit that as Gilbert indicates that the soldering on the interior of the pipe body 20 is melted from the outside of the pipe with a laser and that conductive wire 71 goes through the pipe body 20, Applicants consider that the pipe body 20 is formed only by the insulating body with transparency.

In contrast, Applicants respectfully submit that the configuration (i) discussed above, which is newly-added to independent claim 1 of the instant application, allows the column that is erected through the stem plate to be supported by the metal member and the insulating sealing member of the stem plate. Thus, Applicants respectfully submit that the column is stably fixed to the stem plate. In addition to this stability, Applicants respectfully submit that the configuration (ii) discussed above, which is also newly-added to independent claim 1 of the instant application, disposes elements such as the dynode and the like directly on the stem. See also the previous recitations of the insulating part in independent claim 1 of the instant application. Applicants respectfully submit that, as a result of these specific structural configurations, as described in newly-amended independent claim 1 of the instant application, an excellent quake resistance can be obtained.

In the Final Office Action, the Examiner compares the insulating member to the insulating part 430 of Kimura. However, Applicants respectfully submit that the insulating part 430 is disposed on an upper side from the caulked part 205 of the pipe 200. Applicants respectfully submit that if this configuration of Kimura is applied to features of Gilbert, in the manner asserted by the Office Action's proposed combination, the tip of the pipe 200 of Kimura will be extended to the top surface of the stem and will be fixed with soldering. In addition, the insulating member 430 would be left floating on the top surface of the stem. Applicants respectfully submit that such a configuration is clearly different from the combination of features described in independent claim 1 of the instant application.

Accordingly, Applicants respectfully assert that the rejection under 35 U.S.C. § 103(a) should be withdrawn because Kimura and Gilbert, whether taken separately or combined, do not teach or suggest each feature of newly-amended independent claim 1 of the instant application.

As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” Also, since the prior art does not disclose or suggest any of the combinations recited in Applicants’ claims, and if anything appears to teach away from the current claim recitations, KSR Int’l Co. v. Teleflex Inc., 127 S.Ct. 1727 (2007), Applicants submit that such recited combinations would not have been obvious in view of the applied references of record, whether taken alone or combined in the manner suggested by the Examiner in the Office Action.

Furthermore, Applicants respectfully assert that the newly-added dependent claims 2-4 are allowable at least because of their dependence from newly-amended independent claim 1, and the reasons discussed previously.

### **CONCLUSION**

In view of the foregoing discussion, Applicants respectfully request the entry of the amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution. A favorable action is awaited.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including

any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573.

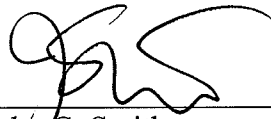
This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

**DRINKER BIDDLE & REATH LLP**

Dated: January 25, 2010

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